

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Application of

John C. Goodwin III

Serial No. 09/824,845

Group Art Unit: 3627

Filed: April 2, 2001

Examiner: Zeender, F.

For:

SYSTEM AND METHOD OF MANAGING INVENTORY

MS Appeal Brief-Patent Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 CERTIFICATE OF MAILING (37 CFR 1.8a)

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Alexandria, VA 22313.

2-15-2005

Karen A. Church

Sir:

Transmitted herewith for filing is an Appeal Brief and two copies thereof to the Final Rejection dated September 15, 2004.

X Please charge Deposit Account No. 14-0225 for the Appeal Brief fee or any other fees associated with the filing of said Appeal Brief.

X Please charge any additional fees to the account of NCR Corporation, Deposit:
Account No. 14-0225.

Our telephone number is: (937) 445-2990.

Respectfully,

Attorney for: John C. Goodwin III

MAR 10 2005 DIFEZJONS



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Attorney Docket No. 9325

Application of:

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Karen A. Church

#### APPEAL BRIEF

Sir:

Appellant has filed a timely Notice of Appeal from the action of the Examiner, dated September 15, 2004, finally rejecting all of the claims in the present application. This Appeal Brief is filed in accordance with the provisions of 37 C.F.R. 1.192.

### REAL PARTY IN INTEREST

The real party in interest is NCR Corporation.

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## RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

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## STATUS OF THE CLAIMS

Claims 1-14 are pending in the application.

Claims 1-14 stand rejected under 35 USC 103(a) as being unpatentable over US 5,963,134, hereafter referred to as Bowers in view of US 2002/0038267, hereafter referred to as Can, and EP 0984379, hereafter referred to as Goodwin.

Claims 1-14 stand rejected under 35 USC 103(a) as being unpatentable over EP 1049042, hereafter referred to as Ashton, in view of Goodwin.

Claims 1-14 are included as Appendix A to this Appeal Brief.

#### STATUS OF AMENDMENTS

Appellant did not file a Response subsequent to the Final Rejection.

## SUMMARY OF THE INVENTION

Claims 1-14 relate to a system and method of managing inventory. A feature of the invention is the use of an electronic

shelf label system to wirelessly transfer information from RFID labels on products to an inventory management system.

As embodied in exemplary Claim 1, one form of the invention includes

1. A method of managing inventory comprising the steps of:
wirelessly receiving first identification information from
first product labels 20 affixed to first instances of a product
by an electronic price label 48 adjacent the first instances,
wherein the first instances of the product include second
instances of the product to be removed for purchase by customers
and third instances to be left adjacent the electronic price
label 48, wherein the first product labels 20 include second
product labels 20 affixed to the second instances of the product
and the third product labels 20 affixed to the third instances of
the product (Page 5, lines 20-27; Fig. 1);

determining a first amount of the product from the first identification information (Page 7, lines 20-23; Step 74, Fig. 2);

wirelessly receiving second identification information from the second product labels 20 affixed to the second instances of the product during sale of the second instances of the product by a checkout station 18 (Page 5, lines 28-31); determining a second amount of the product from the second identification information (Page 7, lines 24-26; Step 76, Fig. 2);

wirelessly receiving third identification information from the third product labels 20 affixed to the third instances of the product by the electronic price label 48 (Page 5, lines 20-23); and

determining a third amount of the product adjacent the electronic price label from the third identification information representing a current inventory amount of the product (Page 8, lines 4-7; Step 82, Fig. 2).

## **ISSUES**

The issues presented by this appeal is:

Whether Claims 1-14 are patentable under 35 USC 103(a) over Bowers in view of Can and Goodwin.

Whether Claims 1-14 are patentable under 35 USC 103(a) over Ashton in view of Goodwin.

#### GROUPING OF CLAIMS

Claims 1-8 are grouped together.

Claims 9-14 are grouped together.

#### ARGUMENT

Bowers (5,963,134) discloses an inventory system for

articles with RFID tags.

Can (US 2002/0038267) discloses a system and method of using radio frequency identification in retail operations.

Goodwin (EP 0984379) discloses a system and method of altering transaction terms based upon current inventory levels. Goodwin further discloses an electronic shelf label system for communicating changes in transaction terms to electronic shelf labels.

Ashton (EP 1049042) discloses a storage system in which RFID label sensors are integrated into a shelf system.

### Claims 1-8

The rejections of Claims 1-8 under 35 U.S.C. §103(a) over Bowers in view of Can and Goodwin and over Ashton in view of Goodwin are improper because the references fail to teach or suggest the combination of elements in Appellant's claims.

The Examiner has suggested that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Bowers et al. for use in a retail environment in view of the teachings of Can et al., and to further modify the system of Bowers et al. to remove second instances of a product from first instances, in view of Goodwin, in order to be able to adjust price/transaction data in real time based upon inventory levels.

However, Goodwin fails to teach or suggest using an electronic shelf label system to send product information from RFID labels on products in order to update inventory data in an inventory management system. Therefore, there is no basis in Goodwin for the Examiner's suggested motivation to combine the stated references to produce Appellant's claimed invention.

Ashton teaches that an electronic price display may be mounted on the disclosed shelf system. However, since Ashton discloses that RFID label sensors be integrated into the shelf system, Ashton provides no motivation to one skilled in the art to instead integrate the functionality of an RFID interrogator with that of an electronic price label to perform inventory management as claimed.

With respect to exemplary claim 1, the references fail to teach or suggest

wirelessly receiving first identification information from first product labels affixed to first instances of a product by an electronic price label adjacent the first instances ... ;

wirelessly receiving third identification information from the third product labels affixed to the third instances of the product by the electronic price label; and determining a third amount of the product adjacent the electronic price label from the third identification information representing a current inventory amount of the product.

As a result, Claim 1 and its dependents are patentable over these references.

With respect to exemplary claim 5, the references fail to teach or suggest

an electronic price label system including electronic displays which display price information, and interrogators which wirelessly obtain identification information from product labels;

wherein the electronic displays include control circuitry for controlling display of price information, for controlling interrogation of the product labels by the interrogators, and for sending the identification information through the electronic price label system; and

a computer which receives first identification information from first product labels affixed to first instances of a product from the control circuitry of an associated electronic display adjacent the first instances, ... and wherein the computer additionally ... receives third identification information from the third product labels affixed to the third instances of the product from the control circuitry of the associated electronic display ...

As a result, Claim 5 and its dependents are patentable over these references.

## Claims 9-14

The rejections of Claims 9-14 under 35 U.S.C. §103(a) over Bowers in view of Can and Goodwin and over Ashton in view of Goodwin are improper because the references fail to teach or suggest the combination of elements in Appellant's claims.

As with claim 1-8, the Examiner has suggested that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Bowers et al. for use in a retail environment in view of the teachings of Can et al., and to further modify the system of Bowers et al. to remove second instances of a product from first instances, in view of Goodwin, in order to be able to adjust price/transaction data in real time based upon inventory levels.

However, Goodwin fails to teach or suggest using an electronic shelf label system to send product information from RFID labels on products in order to update inventory data in an inventory management system. Goodwin further fails to teach or suggest sending product information to the inventory management system by an electronic shelf label computer. Therefore, there is no basis in Goodwin for the Examiner's suggested motivation to combine the stated references to produce Appellant's claimed invention.

Ashton teaches that an electronic price display may be mounted on the disclosed shelf system. However, since Ashton discloses that RFID label sensors be integrated into the shelf system, Ashton provides no motivation to one skilled in the art to instead integrate the functionality of an RFID interrogator with that of an electronic price label to perform inventory management as claimed.

With respect to exemplary claim 9, the references fail to teach or suggest

wirelessly receiving first identification information from first product labels affixed to first instances of a product by a product label interrogator in an electronic price label adjacent the first instances ...;

sending a message containing the first identification information to an electronic price label system computer by the electronic price label;

sending the first identification information to an inventory management computer by the electronic price label system computer;

wirelessly receiving third identification information from the third product labels affixed to the third instances of the product by the electronic price label;

sending another message containing the third identification information to the electronic price label system computer by the electronic price label;

sending the third identification information to the inventory management computer by the electronic price label system computer; and

determining a third amount of the product adjacent the electronic price label from the third identification information representing a current inventory amount of the product by the inventory management computer.

As a result, Claim 9 and its dependents are patentable over these references.

With respect to exemplary claim 13, the references fail to teach or suggest

receiving first identification information stored in first product labels affixed to first instances of a product from a first product label interrogator by control circuitry in an electronic price label adjacent the first instances ...;

sending a message containing the first identification information to an electronic price label system computer by the control circuitry;

sending the first identification information to an inventory management computer by the electronic price label system computer;

receiving third identification information from the third product labels affixed to the third instances of the product from the first product label interrogator by the control circuitry in the electronic price label adjacent the third instances;

sending another message containing the third identification information to the electronic price label system computer by the electronic price label;

sending the third identification information to the inventory management computer by the electronic price label system computer; and

determining a third amount of the product adjacent the electronic price label from the third identification information representing a current inventory amount of the product by the inventory management computer.

As a result, Claim 13 is patentable over these references.

With respect to exemplary claim 14, the references fail to teach or suggest

an electronic price label system including electronic displays for displaying price information, product label interrogators in the electronic displays for wirelessly receiving identification information from product labels, and control circuitry in the electronic displays for controlling display of price information, for controlling reception of the identification information from the product labels by the interrogators, and for wirelessly sending the identification information through the electronic price label system; and

a computer for receiving first identification information from first product labels affixed to first instances of a product from the control circuitry of an associated electronic display adjacent the first instances ... and wherein the computer additionally ... receives third identification information from the third product labels affixed to the third instances of the product from the control circuitry of the associated electronic display, and determines a third amount of the product adjacent the associated electronic display from the third identification

information representing a current inventory amount of the product.

As a result, Claim 14 is patentable over these references.

# Conclusion

Appellant respectfully submits that the Examiner has failed to establish a case of obviousness and that the rejection of claims 1-14 is improper.

Appellant further submits that claims 1-14 are allowable and respectfully requests that the rejection of claims 1-14 by the Examiner be reversed by the Board.

Respectfully submitted

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FEB 1 5 2005

## Appendix A

1. A method of managing inventory comprising the steps of:
wirelessly receiving first identification information from
first product labels affixed to first instances of a product by
an electronic price label adjacent the first instances, wherein
the first instances of the product include second instances of
the product to be removed for purchase by customers and third
instances to be left adjacent the electronic price label, wherein
the first product labels include second product labels affixed to
the second instances of the product and the third product labels
affixed to the third instances of the product;

determining a first amount of the product from the first identification information;

wirelessly receiving second identification information from the second product labels affixed to the second instances of the product during sale of the second instances of the product by a checkout station;

determining a second amount of the product from the second identification information;

wirelessly receiving third identification information from the third product labels affixed to the third instances of the product by the electronic price label; and

determining a third amount of the product adjacent the electronic price label from the third identification information representing a current inventory amount of the product.

2. The method as recited in claim 1, further comprising the steps of:

determining a difference amount between the first and third amounts; and

comparing the difference amount to the second amount to determine a fourth amount of the product including fourth

instances of the first instances of the product which were removed from the electronic price label but not purchased.

3. The method as recited in claim 1, further comprising the steps of:

wirelessly receiving fourth identification information from fourth product labels affixed to fourth instances of the product, not included in the first instances of the product, which are returned by customers;

determining a fourth amount of the product from the fourth identification information; and

adding the fourth amount to the third amount to obtain a new current inventory amount of the product.

4. The method as recited in claim 1, further comprising the step of:

determining from the third amount whether to order additional instances of the product.

5. An inventory management system comprising:

an electronic price label system including electronic displays which display price information, and interrogators which wirelessly obtain identification information from product labels;

wherein the electronic displays include control circuitry for controlling display of price information, for controlling interrogation of the product labels by the interrogators, and for sending the identification information through the electronic price label system; and

a computer which receives first identification information from first product labels affixed to first instances of a product from the control circuitry of an associated electronic display adjacent the first instances, wherein the first instances of the product include second instances of the product to be removed for

purchase by customers and third instances to be left adjacent the associated electronic display, wherein the first product labels include second product labels affixed to the second instances of the product and the third product labels affixed to the third instances of the product, and wherein the computer additionally determines a first amount of the product from the first identification information, receives second identification information from the second product labels affixed to the second instances of the product during sale of the second instances, determines a second amount of the product from the second identification information, receives third identification information from the third product labels affixed to the third instances of the product from the control circuitry of the associated electronic display, and determines a third amount of the product adjacent the associated electronic display from the third identification information representing a current inventory amount of the product.

- 6. The system as recited in claim 5, wherein the computer additionally determines a difference amount between the first and third amounts, and compares the difference amount to the second amount to determine a fourth amount of the product including fourth instances of the first instances of the product which were removed from the electronic display but not purchased.
- 7. The system as recited in claim 5, wherein the computer additionally receives fourth identification information from fourth product labels affixed to fourth instances of the product, not included in the first instances of the product, which are returned, determines a fourth amount of the product from the fourth identification information, and adds the fourth amount to the third amount to obtain a new current inventory amount of the product.

- 8. The system as recited in claim 5, wherein the computer additionally determines from the third amount whether to order additional instances of the product.
- 9. A method of managing inventory comprising the steps of:
  wirelessly receiving first identification information from
  first product labels affixed to first instances of a product by a
  product label interrogator in an electronic price label adjacent
  the first instances, wherein the first instances of the product
  include second instances of the product to be removed for
  purchase by customers and third instances to be left adjacent the
  electronic price label, and wherein the first product labels
  include second product labels affixed to the second instances of
  the product and the third product labels affixed to the third
  instances of the product;

sending a message containing the first identification information to an electronic price label system computer by the electronic price label;

sending the first identification information to an inventory management computer by the electronic price label system computer;

determining a first amount of the product from the first identification information by the inventory management computer;

wirelessly receiving second identification information from the second product labels affixed to the second instances of the product during sale of the second instances of the product by a point-of-sale computer;

sending the second identification information to the inventory management computer by the point-of-sale computer;

determining a second amount of the product from the second identification information by the inventory management computer;

wirelessly receiving third identification information from the third product labels affixed to the third instances of the product by the electronic price label;

sending another message containing the third identification information to the electronic price label system computer by the electronic price label;

sending the third identification information to the inventory management computer by the electronic price label system computer; and

determining a third amount of the product adjacent the electronic price label from the third identification information representing a current inventory amount of the product by the inventory management computer.

10. The method as recited in claim 9, further comprising the steps of:

determining a difference amount between the first and third amounts by the inventory management computer; and

comparing the difference amount to the second amount by the inventory management computer to determine a fourth amount of the product including fourth instances of the first instances of the product which were removed from the electronic price label but not purchased.

11. The method as recited in claim 9, further comprising the steps of:

wirelessly receiving fourth identification information from fourth product labels affixed to fourth instances of the product, not included in the first instances of the product, which are returned by customers by a customer service computer;

sending the fourth identification information to the inventory management computer by the customer service computer;

determining a fourth amount of the product from the fourth identification information by the inventory management computer; and

adding the fourth amount to the third amount to obtain a new current inventory amount of the product by the inventory management computer.

12. The method as recited in claim 9, further comprising the step of:

determining from the third amount whether to order additional instances of the product by the inventory management computer.

13. A method of managing inventory comprising the steps of:
receiving first identification information stored in first
product labels affixed to first instances of a product from a
first product label interrogator by control circuitry in an
electronic price label adjacent the first instances, wherein the
first instances of the product include second instances of the
product to be removed for purchase by customers and third
instances to be left adjacent the electronic price label, and
wherein the first product labels include second product labels
affixed to the second instances of the product and the third
product labels affixed to the third instances of the product;

sending a message containing the first identification information to an electronic price label system computer by the control circuitry;

sending the first identification information to an inventory management computer by the electronic price label system computer;

determining a first amount of the product from the first identification information by the inventory management computer;

receiving second identification information stored in the second product labels affixed to the second instances of the product from a second product label interrogator by a point-of-sale computer that processed sale of the second instances;

sending the second identification information to the inventory management computer by the point-of-sale computer;

determining a second amount of the product from the second identification information by the inventory management computer;

receiving third identification information from the third product labels affixed to the third instances of the product from the first product label interrogator by the control circuitry in the electronic price label adjacent the third instances;

sending another message containing the third identification information to the electronic price label system computer by the electronic price label;

sending the third identification information to the inventory management computer by the electronic price label system computer; and

determining a third amount of the product adjacent the electronic price label from the third identification information representing a current inventory amount of the product by the inventory management computer.

## 14. An inventory management system comprising:

an electronic price label system including electronic displays for displaying price information, product label interrogators in the electronic displays for wirelessly receiving identification information from product labels, and control circuitry in the electronic displays for controlling display of price information, for controlling reception of the identification information from the product labels by the interrogators, and for wirelessly sending the identification information through the electronic price label system; and

a computer for receiving first identification information from first product labels affixed to first instances of a product from the control circuitry of an associated electronic display adjacent the first instances, wherein the first instances of the product include second instances of the product to be removed for purchase by customers and third instances to be left adjacent the associated electronic display, and wherein the first product labels include second product labels affixed to the second instances of the product and the third product labels affixed to the third instances of the product, and wherein the computer additionally determines a first amount of the product from the first identification information, receives second identification information from the second product labels affixed to the second instances of the product which have been sold, determines a second amount of the product from the second identification information, receives third identification information from the third product labels affixed to the third instances of the product from the control circuitry of the associated electronic display, and determines a third amount of the product adjacent the associated electronic display from the third identification information representing a current inventory amount of the product.